

November 28, 1986

TO: File

FROM: Pamela Grubaugh-Littig, Reclamation Engineer *pgl*

RE: Silver Reef Site Visit, ACT/053/022, Washington County, Utah

The Silver Reef Mine was inspected on November 21, 1986. The purpose of the visit from the Division's mine permitting viewpoint was to assess the present disturbance at the mine site.

The Abandoned Mine personnel observed the extent of abandoned mines near the Silver Reef Mine. Personnel from Environmental Health were on site to document possible areas of contamination at the mine site. Personnel from Water Resources made ground verification of the drainages around the Silver Reef Mine site to note if they drained to the Quail Creek Reservoir.

In attendance on site were:

| | |
|------------------------|--|
| Marv Maxell | Environmental Health |
| Loretta Pickerell | Environmental Health |
| Lee Sims | Water Resources |
| Wayne Thomas | Environmental Health |
| Bill Coffmann | Southwestern Utah District Health Department |
| Bill Dawson | Environmental Health |
| Steve Labrum | Sanitarian for Washington County |
| Wayne Wilson | Washington County Water Conservancy |
| Ken Wyatt | Division of Oil, Gas & Mining-AML |
| Pamela Grubaugh-Littig | Division of Oil, Gas & Mining |
| Jerry Glazier | 5M, Inc. |
| Lee Epsom | I P S |

Jerry Glazier stated that the site has been inoperable for about two years. He also said that "just two days ago" he went to the county recorder's office to record that Kerley Industries was no longer involved with the property.

There were disturbances on site that had been documented previously. This included (moving from south to north):

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1. Piles of broken pipes, grates, machinery, and scrap iron
2. "Collecting Area" or "Catch Dam" below mine site (standing water and assorted debris and vegetation)
3. Six fiberglass lined electrolysis tanks, (with anodes) (about 3" of green, slimy solution in bottom of tanks)
4. 4 precipitation tanks
5. Hundreds of feet of PVC pipe (some operable, others broken)
6. Overflow pond
7. Leaching pond with metal deck
8. Leach pads (some with sprinkle leach lines in place)
9. Asphalt pad with cement divider
10. Transformer and small building
11. Crushing area with piles of material and crusher and screen
12. 3 "Pachuca" tanks (continuous leach tanks)
13. All of the leaching and precipitation area has been lined with 7"-8" of asphalt, according to Jerry Glazier
14. 2 roads transecting the disturbed area.

The leaching process used a brine - acid solution. Jerry Glazier said that a weak sulphuric acid solution was pumped onto the leach pads, collected in the ponds, then pumped to the precipitation tanks. The final step was electrolysis.

The collection pond was sampled. The results were:

pH = 3.9 @ shore line
pH = 3.3 @ little pier
pH = 2.9 on the bottom

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The overflow pond had a pH of 5.6 to 5.8 along different shore measurements. Environmental Health collected samples of the solution from both the collection and overflow ponds, and will notify the Division of the results.

Ken Wyatt walked the perimeter of the Silver Reef Mine disturbance. He confirmed the shafts and adits noted on the USGS map. All of these disturbed areas are in the proposed mine development area.

Recommendations for reclamation of the site with the bond presently posted would be dismantling and removing the structures, evaporating the ponds (or somehow removing the solution) and general clean-up. Elimination of the public safety hazards that exist should take priority in the reclamation of the site.

djh

cc: L. Braxton
J. Whitehead
K. Wyatt
M.A. Wright

9075R/21

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